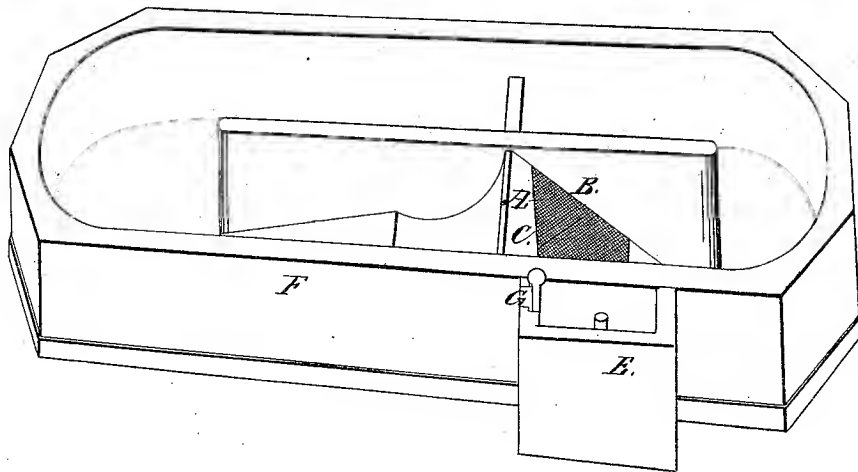
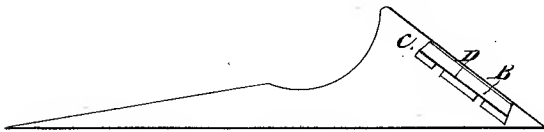


*R. Carter,*  
*Wool Washing Machine.*  
*N<sup>o</sup> 615.      Patented Feb. 22, 1838.*

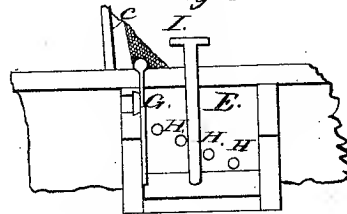
*Fig. 1.*



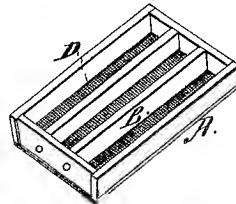
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



# UNITED STATES PATENT OFFICE.

ROBERT CARTER, OF NEAR ELKTON, MARYLAND.

## MACHINE FOR WASHING RAGS IN THE MANUFACTURE OF PAPER.

Specification of Letters Patent No. 615, dated February 22, 1838.

*To all whom it may concern:*

Be it known that I, ROBERT CARTER, of near Elkton, Cecil county, State of Maryland, have invented a new and useful Improvement in Engines for Washing Rags and Preventing the Escape of the Pulp with the Foul Water, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

In the common washing engine there is a hair or wire strainer placed above the horizontal plane of the axis of the cylinder through which the foul water passes as it is dashed against it by the rapid revolution of the breaking cylinder—the water with a portion of the pulp necessarily passing through the screen and falling upon an inclined board placed below, which conducts it with the portions of the pulp driven through the screen by the cylinder to a trough which conveys it off and is thus wasted,—the main body of the pulp being caught by the screen and conveyed back to the cistern to be again operated upon.

It is estimated that there has heretofore been a loss of at least from 5 to 10 per cent. of the pulp through the screen by the dashing operation. My invention and improvement is designed to prevent this great loss of pulp.

It is effected in the following manner. Instead of placing the screen above the axis of the cylinder for separating the foul water from the pulp by the percussion principle, I place the screen below the axis of the cylinder in an inclined position and separate the foul water from the pulp by gravity the water falling through the screen while the pulp passes down over the screen into the cistern again.

The screen is constructed by making a frame A Figures 1, 2 and 4 of a rhomboidal figure over which the hair or wire strainer B of a similar shape is nailed.

A piece is cut out of the inclined plane C, of the breasting, of the same shape as the screen to admit the frame and screen—leaving the screen even with the surface of the inclined plane and a space D Fig. 2 under the screen for the passage of the foul water to a receptacle or box E Figs. 1 and 3 constructed on the outside of the cistern F. This box is furnished on one side with a sliding gate G moving vertically to regulate the discharge of the water, which may run either over or under it, the water passing from the cistern to the box through apertures H in the side of the cistern. This box is likewise furnished with a hole and plug I at the bottom to discharge the sand or other sediment collected therein.

The screen may be made of a sheet of copper punched or drilled in very fine apertures.

The invention claimed by me the said ROBERT CARTER and which I desire to secure by Letters Patent consists in—

The before described arrangement of the inclined screen of the washing engine of the paper mill below the axis of the cylinder instead of above it, so as to separate the foul water from the pulp by causing the water by its gravity to descend through the inclined screen and pass off through apertures in the side of the cistern into a box constructed on the outside thereof, regulated by a gate, while the rags and pulp pass gently down over the screen into the cistern again and around the partition to the cylinder to be acted on in like manner, instead of the old method of placing the screen above the axis of the cylinder and dashing the foul water through it by the motion of the cylinder which necessarily drives with it a large portion of the pulp thus causing a great waste of material to the manufacturer.

ROBERT CARTER.

Witnesses:

WM. P. ELLIOT,  
WM. BISHOP.